

IN THE SPECIFICATION

Please insert new paragraph [0038.1] as follows:

[0038.1] Fig. 19 is a flowchart.

Please amend the paragraph beginning at paragraph [0145], as follows:

[0145] For this purpose, data from a study conducted on rabbits which had received dexamethasone (a synthetic analog of cortisol) as a means to induce bone atrophy (Takahashi *et al.*, *Proc. Natl. Acad. Sci. USA* 19:19 (2002)), were re-examined. In brief, the protocol involved eleven New Zealand white rabbits that either received dexamethasone (0.4 mg/kg/day, N=6), or were sham operated (N=5). Images were obtained at three time points, first at baseline and subsequently at four (4) and eight (8) weeks after the beginning of the corticosteroid-treatment. MR images of the distal femur epiphysis were acquired with the FLASE pulse sequence used in the previously described human subject study (Example 7), affording 28 contiguous slices of $97 \times 97 \times 300 \text{ m}^3$ voxel size. The visually matched images of μ -MRI data sets (SNR values between 9 and 11), as illustrated at FIG. 17, were subsequently processed to yield BVF maps using a method analogous to the one used for human radius images.